



NEWSLETTER OF THE LONDON CHAPTER,
ONTARIO ARCHAEOLOGICAL SOCIETY



May, 1986

86- 5

Tall Tales from the Low Lands

Carl Murphy will complete a very successful spring season of Chapter presentations with an entertaining talk on one of the more controversial topics in southwestern Ontario Late Woodland research. Combining data from a wide variety of sources, Carl will discuss his latest understanding of prehistoric Iroquoian-Algonkian interaction in southwesternmost Ontario.

Meet with us at the Museum of Indian Archaeology at 8:00 P.M. on Thursday, May 8. Bring a friend, and give us your views on the proposed agenda of Chapter summer activities!

Chapter Executive

President

Neal Ferris (432-2165)
20 Picton Street, London

Vice-President

Linda Gibbs (472-4915)
75 Fiddler's Green, London

Secretary

Margaret Flanagan (685-1522)
505 Osgoode Drive, London

Treasurer

George Connoy (631-6338)
762 Elm Street, St. Thomas

EXECUTIVE REPORT

May 5 found our executive meeting in London to discuss a wide range of business. Neal reported that the Oneida project is proceeding smoothly and has been approached by two other historical research groups at Oneida to pool resources. This year's survey license has been approved and the SEED program will be providing three student positions, including a Project Manager. Student Mapower will be holding interviews during the third week of May. Oneida has also applied for a provincial Community Facilities Improvement Program grant in connection with their planned sesquicentennial celebrations.

Neal next reported that Chapter Occasional Paper No. 1, **Studies in Southwestern Ontario Archaeology** will be ready by the end of May. Five hundred copies are to be printed, and our volume has already been selected as a course reference work at the University of Western Ontario.

Our secretary, Ms. Margaret Flanagan, has a new adress and telephone number. She now can be reached by way of 159 Bruce Street, Apt. 3, London Ontario (N6C 1H2). Her new number is 672-0371.

Final topics of discussion included planning of our Chapter summer picnic (see this months social report and enclosed flyer), a possible bus trip for later this year (contact Margaret for further information), and the retirement of our newsletter editor. In response to the latter, the executive has struck an ad hoc editorial/production committee who will produce subsequent numbers issues until such time as a permanent replacement is selected.

1985 O.A.S. Symposium Attendance Statistics

Paid Registrants

Student (\$15.00/each)	43
Pre-paid Regular (\$18.00/each)	65
At Door Regular (\$20.00/each)	44
Total	152

Complementary Registrants

O.A.S. Executive/Assistant Staff	6
Banquet Speaker	2
Total	8

Grand Total 160

Banquet Attendance

Regular	113
Complementary (Speaker)	2
Total	115

News Flash

President Neal Ferris announced at the May 19 executive meeting that he had been informed by the Society executive of an Executive Director vacancy which can be filled by any O.A.S. member who wishes nomination.

SOCIAL REPORT

Those of you who attended the recent nineteenth annual meeting of the Canadian Archaeological Association in Toronto will realize that our Chapter was well represented in the programme (unabridged) and among the attendants. Neal's Late Historic Native Archaeology and History in the Northeast session was outstanding and well attended. Chapter members also presented papers in six of fourteen other sessions, which is a pretty good average considering the range of specific areas and topics addressed in these meetings. We even had a member speaking in the Recent Trends and Current Research in the Eastern Mid Continent session! (o.k. Paddy?). Finally, Chapter member Bob Mayer was invited to speak on the Oneida Project during the excellent Native Organizations and Archaeology/Heritage Studies workshop held on Saturday afternoon.

Ninth Annual Chapter Summer Picnic

Join the club at East Park on Saturday, July 5. Yes, it's the first annual London Chapter Pro-Am Celebrity golf tourney! Pick your partners and sign up! Tee off time on the 18 hole course is 8:30 A.M. The Chapter will be renting one of the three East Park picnic areas, and for those slightly less masochistic members there is a swimming pool, water slide, and go-karts (watch out for Ian!). Sounds like a good time...

Editor's Corner

Well, I guess it's goodbye. After all, our faithful readers have suffered through a decade of late newsletters and questionable humour - they deserve a break! The retirement of yours truly was prompted not only by an impending job change, but by the feeling that it was time for a fresh perspective in our newsletter. With the quality of our membership, I have no fears as to KEWA's future and am sure that it will continue to change and improve. But before signing off, I wish to sincerely thank all those people who have often toiled anonymously over the years in newsletter production, and also those who have generously shared their ideas with us through research reports submitted for publication. Thank you Betty, Ian, Paul, Barb, Neal, Janie, Christine, Bob etc.!!

Just Who is the O.A.S.?

Having observed and participated in the Ontario Archaeological Society for some twenty years, I have had the opportunity to witness our organization's growth from a small Toronto-based group to a truly provincial society of international repute. It was with this perspective that a revised constitution was presented to the O.A.S. membership in late 1979 (Arch Notes 79-6), following two years of study, consultation and drafting by the Society's Constitutional Committee. The revisions proposed were radical (especially from a Toronto perspective) and potentially costly, so that the draft document was left to die quietly. Subsequently, a revised constitution was presented to the membership in 1984, which "did not re-structure the Society in any drastic way; the revisions are (were) induced mainly by changed circumstances of operation" (Arch Notes 84-3: 19).

A recent letter from the London Chapter to the Toronto executive committee

expressing dissatisfaction over an apparent lack of communication and support from the latter caused quite a commotion in Toronto and led to several written responses. President Don Brown's letter was carefully considered and supportive. In turn, several eloquent letters were drafted by our Chapters in Windsor and Thunder Bay, supporting to a great extent the feelings of the London executive.

An initial response in Toronto, as expressed during a telephone discussion with the writer, was defensive in nature. It was suggested that outsiders did not realize and thus appreciate the amount of time and effort devoted to running the Ontario Archaeological Society. It was further suggested that the Chapters were not an integral part of the Society and that if the Chapter executive objected to the way the Society was managed, they were free to leave (words of anger that I am sure were not meant). Finally, it was stated that such "attacks" on the executive committee could lead to mass resignations and the total collapse of the Society.

The writer's response was that many O.A.S. members across the province commit considerable time and effort to supporting and managing the O.A.S., and that the resignation of the Toronto executive committee would hardly signal the demise of the Society. After all, the Society is alive and well across the province, thanks to the efforts of such people as Laurie Leclair, Dena Doroszenko, Ruth Hamilton, Linda Gibbs, Clyde Kennedy and Ken Oldridge - to name just a few! One need only consult the inside back cover of the latest **Arch Notes** to discover the names of several more, but by no means all of the active, contributing members of the Ontario Archaeological Society.

As provincial organs of the Society, the **Arch Notes** newsletter and **Ontario Archaeology** journal are excellent and speak for themselves. The contributions of their longterm editors cannot be overstated. Further, no one can doubt the dedication of our provincial Administrator and Librarian - a position which in all fairness should be remunerated as the full time job that it is!

Perhaps it is once again time to look at the possibility of a Board of Directors representing all Chapters and assisted by the aforementioned administrator and editors. Such a provincial executive could not help but be representative of and sensitive to Chapter needs and interests across Ontario. With the expanded availability of personal computers and the use of modems, such an executive might not have to meet face to face more than once a year. Thus, beyond an initial capital outlay for micro-computer units (which at least one chapter already has), the cost of such an executive structure would probably be little greater than the present.

While non-Chapter-affiliated membership in the Society is important in several ways (particularly financially), the writer would argue that the heart of the O.A.S. is not distant, often institutional membership, but the Angus McLeans, Charley Nixons, Annie Goulds and Susan Johnstons of the Society. These are the people out in the community, on the front lines, representing and promoting Ontario archaeology on a local level. Ontario is not Toronto or Thunder Bay or the Ottawa valley. It is the words of Society members in their own communities which will lead ultimately to a heightened awareness and appreciation of this province's archaeological heritage on the part of the general public, whose taxes subsidize so much of our Society activity, as well as the work of many professionals.

Just as Society membership has grown and Chapters proliferated over the last decade, so will these trends continue during the coming years. Requests for greater communication and regional representation in the direction of the Society as a whole

will just as surely increase, and how long can the Society deny that it is a federation of regional chapters, each with their own unique character and perspective, united in the common aim of promoting Ontario archaeology?

Those interested in the legislative history of archaeological resource conservation in our province, may find the following 1797 proclamation surprising. It was noted in the Russell Papers and brought to our attention by Mr. Neal Ferris:

**Proclamation to Protect the Fishing Places
and the Burying Grounds of the Mississagas**

Proclamation,
Upper Canada.

Whereas, many heavy and grievous complaints have of late been made by the Mississaga Indians, of depredations committed by some of His Majesty's subjects and others upon their fisheries and burial places, and of other annoyances suffered by them by uncivil treatment, in violation of the friendship existing between His Majesty and the Mississaga Indians, as well as in violation of decency and good order: Be it known, therefore, that if any complaint shall hereafter be made of injuries done to the fisheries and to the burial places of said Indians, or either of them, and the persons can be ascertained who misbehaved himself or themselves in manner aforesaid, such person or persons shall be proceeded against with the utmost severity, and a proper example made of any herein offending.

Given under my hand and seal of arms, at York, this fourteenth day of December, in the year of Our Lord one thousand seven hundred and ninety-seven, and in the thirty-eighth year of His Majesty's reign.

By His Honours's command,
Alex. Burns
Secretary

Peter Russell,
President
Administering the
government.

It is with pleasure that we offer our readership the following witty and entertaining article submitted by Chapter member Jim Keron:

**The Embro International Airport Project:
Archaeology in the Classroom
James Keron**

Archaeologists, both professional and amateur, are frequently asked to make presentations at public and high schools, either directly to the students or during professional development days to the teachers. The following report describes a program which the author developed and presented last year in several Oxford County schools. Hopefully these ideas in part or in whole may prove useful to others.

The students participating in the program consisted of two classes in an

enrichment program for grades four and five, one in Ingersoll and the other in Woodstock. Each class was composed of students from several area schools who attend the enrichment program for one week out of four. During this program they pursue various topics in more depth with more room for creative expression than would normally happen in a regular classroom. The teachers handling these classes are extremely capable and imaginative. The classes are small; thirteen in one case and twenty in the other, which makes a high degree of interaction possible. Combining this situation with a select group of students, a highly energized and motivated group was created with which it was a pleasure to work.

The program was arranged to occupy two full weeks of classes, where the students would do nothing except live, eat and breath archaeology. There were two one week long sessions, separated by three weeks back at the regular school of attendance. It was set up to emphasize archaeological methods and procedures, and the whole project worked towards an actual "hands on" dig in a prehistoric Iroquoian midden. The first week started off with a presentation by the author which set the stage for subsequent activities during the week; including a simulated archaeological survey and excavation as described below. In addition several other diversions were thrown in, such as the Native cooking session. Also included in this initial portion were trips to the Museum of Indian Archaeology, Ska-na-doh and the Woodland Indian Cultural Centre in Brantford.

The second week was primarily geared towards preparing for the dig itself. During the first week students became familiar with finished artifacts. In order to prepare them for the less spectacular discoveries in a midden, they were set to work washing and sorting previous findings from the midden they would eventually excavate. Thus, when it came time to start the actual dig, they were fully cognizant of the flakes, bone fragments and micro sherds that composed most of the cultural material in the midden.

Nonetheless, as there was still concern that something important might be thrown away (a situation not uncommon with novice excavators), it was decided that after the screens had been gone over and the cultural material removed, the entire residue would be placed in a large bag for later examination. To ensure consistency in artifact recovery this was done for all screened soils, whether excavated by students or the experienced volunteers who assisted setting up the dig and finishing off the excavation. A comparison of the material overlooked indicates that either the students were trained to the point that they were as good as experienced excavators or that the "screen, pick and dump" method of excavation leaves a lot to be desired. However, this issue will not be pursued here. Finally, after the dig the students produced a report on their excavation findings. The remainder of this paper describes the various phases of the program in more detail.

Class Presentation

As inclusion of the material from the entire presentation would be too lengthy and would only repeat standard introductory texts, this section will provide only a brief outline of the presentation and some of the techniques used to keep the students from drifting off into boredom.

If a lecture format that consumes three hours of student time is tenuous at the university undergraduate level, it is an invitation to disaster at the elementary level. In order to avert this situation, several techniques were used which involved a great

deal of participation, frequent questions of the group, the use of artifacts as interest catchers and several exercises and other diversions such as atlatl dart throwing.

The first half hour was the closest that the presentation came to being a lecture. The purpose of this introduction was to give them information concerning the goals of archaeology. Topics emphasized included the aim of the discipline as a study of former society, not the artifacts themselves; the importance of artifact context; the importance of keeping records and reporting the finds, and what else an archaeologist does, with a focus on analysis and reporting.

After about twenty minutes of this lecture format the students' attention span was starting to run out, so at this point the first sample bag was pulled out of the mysterious box that was kept conspicuously in front of the group at all times.

In order to establish the concept of a "type", three projectile points were placed in front of the group; one a triangular Iroquoian point, the second an Archaic corner notched point and the last a sizeable Genesee point. This was followed with a round of group questioning regarding the differences and similarities between the three points, which led to some good answers from the students. Their observations were eventually characterized as either "style" or "function" related. The answers obtained covered more attributes than had been anticipated. One student was even observant enough to note the difference in chert types.

Expanding on the idea of style with several examples from the modern world, such as cars, the concept of type was further defined. With this concept firmly in place, a dozen or more easily typeable projectile points were then produced from the next bag. Using a chart of projectile points for Ontario (Fox 1980), the students were asked to assign the artifacts to their proper time period. This exercise consumed another ten minutes or so and was done surprisingly well, given the newness of the idea and material. At this point, in order to demonstrate at least one of the weapons systems discussed in analysing the three points, the class adjourned to the school yard to try throwing a dart with an atlatl. This was a novel experience which provided a welcome break from the classroom.

The next portion of the program involved examining other types of artifacts that would be recovered from prehistoric sites. This involved a "show and tell" format with the students having plenty of opportunity to handle the artifacts and ask questions.

Next, to prepare the students for the simulated survey and excavation, it was necessary to go over some of the concepts and methods involved in dating. A brief description of how radiocarbon dating works was provided, but most of the discussion centered on seriation and stratigraphy. In order to get across the idea of how seriation works, modern analogy was again used by choosing something with which the students were intimately familiar: toys. To make this work it is necessary to raid your own childrens' toy boxes for suitable examples. Items chosen in this case were Star Wars figurines, Masters of the Universe figurines, Smurfs and Transformers. It was not necessary to gather information on the relative popularity of these items at different times in the last few years, as this can be readily obtained from the students themselves. With this information the students were doing seriations of hypothetical toy boxes in no time and it was an easy matter to transfer these concepts to Iroquoian pottery.

To introduce the idea of stratigraphy, a deck of cards was used. The students were asked to face the other way while cards were placed on the floor in several

piles. Each suit was represented in succession, but not every suit was placed in each pile. The students were then asked to determine in what order the suits had been placed on the floor. This was too easy for the first group, so it was made more complicated for the second group so that no one pile contained all the suits. For the second group one key pile remained hidden until they realized they did not have enough information to put all four suits in order. With this exercise they were ready for the simulated excavation where there were important differences to the separate strata.

This activity was followed by a short description of regional prehistory and the talk was concluded with an exercise in inference which Claus Breede demonstrated at the 1984 annual Archaeological Conservation Program conference and for which he deserves full credit. The activity involved the use of a common flower pot. The class was asked to pretend that they were archaeologists living 1000 years from now. They have just discovered this strange object and have absolutely no idea of its former use. The students then proceed to examine the pot to try and infer its function. Many observations can be made; including purpose of the hole at the bottom, the strange exotic seeds that were contained in it, the single round stone inside, the source of the clay from which it was made, the strange chemicals in the soil, the find location near windows, etc. The possibilities are almost endless. During the entire question and answer session the pot is tossed up and down and from hand to hand by the session leader. When most of the possibilities have been exhausted, the pot is "accidentally" dropped on the floor and shattered with electrifying results. At this point the presenter picks up a portion of the pot and adds "and, of course, what the archaeologist finds is this and your assignment is to reconstruct the pot and glue it together." Sure enough, exactly as Claus Breede stated, about thirty little hands immediately vacuumed every piece from the floor and could not be restrained from gluing the pot back together. One of the reconstructed pots was fashioned into a trophy and presented to Claus in appreciation for his idea.

Simulated Survey and Excavation

This activity accounted for the major portion of the remaining week and was conducted entirely within the classroom, under the direction of the regular teacher using the material presented in the appendices below. Students began with a simulated survey which was conducted primarily as a map exercise. Several imaginary sites were located at various spots on a topographic map of the Embro area. The students were then told that an international airport was about to be constructed within specific boundaries on the map and that they were archaeological consultants hired to survey the area and excavate some of the sites. They were given the material presented in Appendix A, which contains the "known" information about the area. In order to make the exercise more realistic they were given a grant to conduct the survey and some idea of what their expenses might be. Obviously, there was not nearly enough money to survey the entire area and a survey strategy had to be developed that would enable the discovery of most of the sites. Simulated AARO notes, some registered sites, some rumours and even a role playing encounter with a not-too-helpful, secretive "pothunter" were included.

A survey was then conducted by the group, selecting one of the military grid squares for their study area. After the square was selected the teacher,

using Appendix B as a guide, would hand over any material, if any, that was encountered in the square. This was in one of two forms. The first consisted of a sheet of paper (Appendix C) which described the contents of an Iroquoian village that was found in that square. The second consisted of a bag containing several projectile points of various types. Of the four bags thus provided, three contained easily typeable points. The fourth contained several nondescript untypeable points which were taken along on the tour of the Museum of Indian Archaeology for identification - leaving some poor summer student to attempt an impossible identification task. At the completion of the survey, the material was analyzed and reported using a classroom discussion format. The students then tried to discover the underlying patterns represented in the site locations.

After the survey was completed, one of the sites was selected for further excavation. This involved two steps. First a test square was excavated, and then the remainder of the site.

To excavate the test square a box was built about five feet square with sides about a foot high. This was then filled with several layers of different coloured soil and a number of artifacts were planted in the soil within each level. At the lowest level, post moulds which were related to two overlapping houses were created in a light brown subsoil. The material and levels are described in more detail in Appendix D. This exercise worked well the first time, when the soil was still moist, but did not work well the second time when it had dried out.

The community pattern for the rest of the site was traced out on a sheet of cardboard and then covered with a second sheet. The site was then "excavated" by cutting out squares of cardboard with an exacto knife. Once again the money available was not sufficient to cover the cost of the entire excavation, so only portions of the site were excavated. Reporting was again handled by a classroom discussion centered on the questions in Appendix D.

Artifact Washing

After "spoiling" the students the first week through exposing them only to finished artifacts, it was necessary to introduce them to the less exciting material more often recovered during excavation. In order to prepare the students for a dig on a real site, they were set to work washing and sorting material recovered from excavations. In this fashion they got to handle and examine the material they would be recovering, and they saved the author considerable work in the process! This exercise seemed to prove highly interesting for them and subsequently, they did well in recognising the material in the field.

The Dig

The practise of allowing novice excavators to take part in an archaeological dig has occurred several times previously in the London area at both the Longwoods Conservation Area and the Museum of Indian Archaeology. The latter institution actually ran a program for schools for a couple of years, before a lack of funding required termination of the program.

In this case, a late prehistoric Neutral midden was selected from which the author wanted an artifact sample for comparison with other sites in the area. The midden was excavated in one metre units by teams of three to four students. Each team succeeded in excavating close to one 10 centimetre level per day. While very few finished artifacts were recovered by either group, the enthusiasm did not abate during the entire time the students were on the site. This "hands-on" field activity seemed to be the portion of the program which was most enjoyed by the majority of the students.

Flotation Sample

In order to illustrate the amount of information hidden in the ground and what can be done with it to determine prehistoric lifeways, a float sample was processed at the creek near the site using a bucket borrowed from the Museum of Indian Archaeology. The children had previously witnessed the extraction of the soil sample from an undisturbed portion of the midden. While several large bones and pieces of pottery were found, they were amazed at the amount of material in the heavy fraction of the sample. Some difficulty was experienced in keeping them out of the creek in their curiosity to see the results. Oddly enough, several of the students found the flotation exercise to be the highlight of the program.

Computer Applications

This option was explored, but it is nearly impossible to do unless the computer equipment and applications can be provided by the institution conducting the program. It has been done successfully at the Museum of Indian Archaeology, however it could not be done during this project as the author's equipment was incompatible with the school's Commodore system.

Native Foods

Using information from Parker (1910) and Bomberry (1984) -- since this presentation another reference to Native foods has been found (Waugh 1973) -- the students from Ingersoll spent half a day preparing Native meals including corn soup and other dishes. While most of the students enjoyed the preparation, the actual consumption was a different matter. The corn soup included fish, among other things, and the students' remarks sounded not unlike the historically recorded reactions of the Jesuits among the Huron regarding this dish. To top it off one of the students, who had more than a passing knowledge of archaeology and corn soup (eight years experience, ten years old), after cutting up the fish, threw the tail in for good measure, leaving the girl who received it in her portion less than impressed (revolted would be closer to the truth).

Indian Games

This can make an interesting diversion but requires some props. Not having extended access to these, this activity could not be fully exploited during the program, but has been used successfully at other times when it has

been possible to borrow some of the reconstructed material from the Museum of Indian Archaeology. An excellent source for ideas here is Culin (1975).

Mexico

As can be seen, the majority of the program was based on Ontario archaeology. To give the students a glimpse of material from exotic, more advanced areas, some speaker's names were passed on to the teacher and Charlie Nixon, another London Chapter member, responded with a talk and some slides of the last OAS trip to Mexico.

Law

One major worry connected with intensive student exposure to archaeology is that we might create "archaeological juvenile delinquents". One short session was conducted by the teacher to cover the legal aspects of archaeology. The main source used was the booklet *Archaeology and the Law*, published by the former Ministry of Culture and Recreation. Reference was also made to the KEWA article by Fox (1985) which summarized a recent precedent-setting court case involving looting of the Freelon and Misner sites.

Conclusions

What we produced at the end of the program were two trained student field crews that could probably compete successfully with regular undergraduate crews, but are, unfortunately, too young to hire.

What really made the effort worthwhile were the "thank you" letters that came from the students after the program was completed. These varied from one student who didn't appreciate the flower pot landing beside him when it was dropped, "It went off like a grenade.", to another who suggested that one of his fellow students would have made a good target for the atlatl dart throwing session, to comments about the "chase-the-hat" game in which several urchins absconded with the author's hat and were surprised to learn that he could still run fast enough to retrieve it! While it would make more enjoyable reading to include all the letters, the following are three samples which provide a flavour of the responses. Watch for these kids, they're the class of '97....

Dear Mr. Keron,

Thank you for all the time you spent on things like the simulation games and visiting us here at school and all the setting up for everything. I really Liked the Dig.

Before I didn't really care about archaeology, but now, since I've tried it I'm seriously considering taking it in collage and beoming an archaeologist.

Please thank your parent's for the cake and drinks.

Thank you

Krystal Hanke

Dear Mr. Keron,

I really thank you for everything you've done. I enjoyed the real live dig

we did. I didn't find much on the actual dig but it was still fun.

It's all right that you got dirt all over me and that you dropped your trowel on my neck.

Thanks for giving up your time for us.

Thank your parent for the delicious food.

Dear Mr. Keron,

I have written you a poem in appreciation of the time you have spent helping us to understand...

Arrowheads, covered with dust
Roaring rivers, now quiet streams
Claws of bears, forgotten history
Helping us remember people of long ago
Atl-atls thrown all around
Everlasting work
Only getting paid in satisfaction
Lots of fun
Other things I haven't mentioned
Geography galore
You Thank you thank you thank

Yours truly

Amienna Qaraan

References

Bomberry, Alice

1984 **Woodland Indian Foods.** The Woodland Indian Cultural Centre, Brantford Ont.

Culin, Stewart

1975 **Games of the North American Indians.** Facsimile reproduction, 24th Annual Report of the Bureau of American Ethnology to the Smithsonian Institution 1902-1903. Dover. Toronto.

Fox, William

1980 **Southwestern Ontario Projectile Points.** ACP Handout.

1985 **The Freelon/Misner Site Looting and Prosecution.** KEWA 85-5:4-13. London.

Parker, A.C.

1910 **Iroquois Use of Maize and Other Plants.** New York State Museum Bulletin 144. Albany New York.

Waugh, F.W.

1973 **Iroquois Foods and Food Preparation.** Facsimile Edition, Canada Dept of Mines, Geological Survey Memoir 86 No. 12 Anthropological Series 1916. Ottawa.

Acknowledgements

The writer would like to thank O.A.S. Chapter members George Connoy and Ray Crinklaw for their assistance during the excavation of the site, and Bob Mayer who provided refreshments after a hot afternoon. Also, Dave Smith graciously provided some material describing the Museum of Indian Archaeology program and Linda Gibbs loaned the Bomberry reference to the writer. Finally, full recognition should go to Colin Hignett, the teacher of the two groups, whose enthusiasm led to the application of the ideas presented here.

Appendix A Student Instructions for the Survey Exercise

You are all members of the archaeological consulting firm, Oxford Archaeological Consultants, and have just been awarded a contract to conduct a cultural resource assessment for the proposed site of the new Embro International Airport for the Federal Department of Transport. Your task is to locate any significant archaeological sites within the proposed area of the development, document them and make recommendations concerning their salvage mitigation.

The total value of this contract is \$5,000 and your report on the first phase is due in 4 weeks.

The Rules:

A team of five people can survey one military grid square in one day. The cost of this in wages and transportation is \$150.

As it will not be possible to survey the entire area with the given funding, it will be necessary to devise some plan to focus the survey on areas which are most likely to contain archaeological sites.

You may talk to any of the people who own farms in the area. The responses will be given to you by the referee.

A printout of all sites known and registered in the area has been provided by the Provincial Ministry of Citizenship and Culture.

The Map:

A map is provided which shows the area of the airport and the surrounding countryside. The boundary of the airport is outlined in yellow. Also marked on the map are soil type classifications in the vicinity. There are two soil type areas. The first is primarily sand and gravel and is on the hatched sides of the black lines. The second is a heavy clay and is on the other side.

AARO Clues:

In the Annual Archaeological Report for Ontario from the year 1903, the following entry is found among donations from a collector in the Woodstock area: "From the farm of ????? on Concession 4 of West Zorra Township several pieces of decorated pottery, pipes and some arrowheads....Several rims of pottery vessels from the area north of Embro."

Appendix B
Referee Instructions for the Survey Exercise

The kids may need guidance in planning the project, because if they merely guess at square selections they will likely miss most of the sites, and could not arrive at many useful conclusions. For more description of a survey project see one of the handouts from the Museum of Indian Archaeology.

Steps in the Survey Project:

1. Research known material
 - a. Consult list of registered sites
 - b. Review old publications (AARO)
 - c. Interview collectors and landowners

2. Check out leads

3. Design survey strategy
(survey along water courses)

4. Do the survey

It will be necessary to keep some record of which squares have been surveyed, so as to know when the funds run out. Also, the kids will need to know so that they do not survey the same area twice.

5. Report phase

This can be handled in a question and answer session, as outlined below.

Registered Sites:

The sheets for the registered sites should be handed out at the start and these sites plotted on the map. All site numbers are recorded using the military grid square in which they are located.

Site 1. (7602)	-1400 AD
Site 2. (8706)	-1500 AD
Site 3. (7509)	-1250 AD

AARO reference

Site 4. (7607)	-1350 AD
----------------	----------

-Lot 9 Con. 4 West Zorra - with the name of the farmer in the historical atlas and an error in the concession number reference, students have to sort out the conflicting information. Despite the fact that this site is outside the airport boundary, it should still be investigated, as it provides data on where sites might be located in the airport area. They will also have to work out the date of this site.

Pot Hunter:

They should hear about this person early in the survey and be directed to him as an expert on local Indian sites. They should hear about this character while surveying 7607.

Site 5. (7906)	-1400 AD
----------------	----------

To Be Discovered:

Large sites

For each of the following sites a description is provided of the artifacts found. From this material the kids should be able to come up with a rough date.

Site 6. (8207)	-1400 AD	
Site 7. (8406)	-1450 AD	
Site 8. (8202)	-1450 AD	
Site 9. (7803)	-1450 AD	This is the site selected to be dug.

Small sites

For each of the following sites a sample of artifacts is provided as follows. The students will have to identify the time period for each collection.

Site 10. (8104) - bag 1	Late Archaic - Genesee points.
Site 11. (8303) - bag 2	Glen Meyer - Levanna points.
Site 12. (8107) - bag 3	A bunch of non-diagnostic artifacts.
Site 13. (8506) - bag 4	Early Archaic - Nettling/LeCroy points.

The people at the Museum of Indian Archaeology should be able to identify some of the more difficult types.

The Pot Hunter ("Arrowhead" Smith):

This is the bad guy, so play accordingly. He lives in Embro. When you arrive at his house, he will escort the group into his rec room which is filled with display cases and picture frames loaded with all sorts of artifacts. The sharp eyes of the archaeologists pick out artifacts from all periods of prehistory. Much of the material is obviously of local origin but some pieces are exotic (come from a long way away). None of the artifacts have any kind of catalogue number on them, so it is obvious that no reference has been kept to where they have been found. It is also obvious, as some of the pottery in the room is in very large sections and indeed, one pot would appear to be completely reconstructed, that he has been digging in an uncontrolled fashion through undisturbed deposits. "Arrowhead" Smith will talk unendingly about the artifacts but will divulge little or no information about where they were found. He will be quite willing to point out the location of site 7906 as the area is now a park and he can not loot the site any longer. "Just head up north and take the first turn on the left and go a bit down the road until you see the pond on the left. It's just behind there". He also knows about site 8207, but will try to give the students a "bum steer" since he is currently potting the site. He will direct them to some ridiculous spot where nothing will be found, like 7804.

He will claim that the rest of the artifacts he possesses were : 1. bought at auctions, 2. came from his brother who lives near Aylmer, 3. "Can't remember - etc." Whatever the excuse, he is not about to give any useful information. In reality he knows a great deal about the vicinity but is keeping it to himself. As they are surveying the area the students will hear about this character from people in 50% of the squares surveyed on the south half of the map. If the kids pick up on this, they should probably put things together and realize the quality of information he has given them and his motives.

Questions - Report Phase:

1. Why were the villages placed where they were?
 - a. Along a stream.
 - b. Near a fork or secondary creek.
 - c. On sand/gravel soil.
 - d. Near the clay soil.
 - e. Drained on three sides.
2. Using the aids provided, come up with dates for all of the sites.
3. What do differences in dates of the villages with pottery mean?
(we are dealing with three distinct groups of people, all moving up creeks to the north through time, one group per creek)
4. Which way did the groups move?
(north)
5. What else happens through time?
(villages get larger)
6. Do site selection criteria change with time?
(yes - the early village at 7509 is different than all the others)
7. Why is 8706 so large? Why are there no other villages this age in the area?
(the villages joined together to form one larger village)
Why?
(your guess is as good as mine)
8. What do you think of "Arrowhead" Smith?
9. What are the dates and types of artifacts from the small sites?

Support Materials:

1. ACO guide to artifacts.
2. Embro maps.
3. Historical Atlas of Oxford County.
4. Site descriptions.
5. AARO simulation.
6. Bags of artifacts from four small sites.
7. Student instructions.
8. Referee instructions.

Appendix C Site Data

Below are listed the data which were put on the site sheets. Figure 1 is a sample of what the final product looked like. The drawings are taken from a Ministry ACP handout.

The Embro Site (7509)

This is a village site. Several concentrations of artifacts and dark soil indicate the location of former middens. The site relates to the Glen Meyer period with an artifact seriation date of 1250 AD.

Site Size: 1.5 acres

Site Date: 1250 AD

Pottery Types Found:

- | | |
|------------------------|----|
| 1. Ontario Oblique: | 12 |
| 2. Ontario Horizontal: | 15 |
| 3. Glen Meyer Necked: | 2 |

Site Description

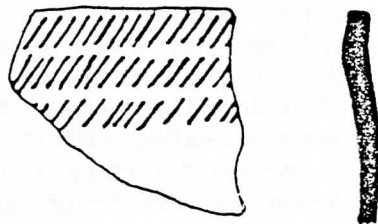
The site is obviously a village site as it covers a considerable area and there are numerous concentrations of artifacts. Near one of the fence lines it is obvious that someone has been digging through one of the middens in an uncontrolled fashion.

Site Size - 2.5 acres

Site Date - uncertain

Pottery Types Found:

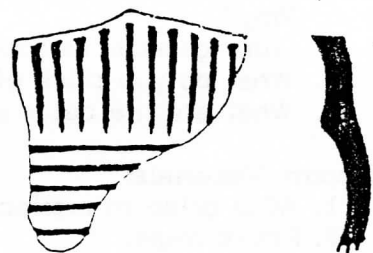
1. Ontario Oblique: 0



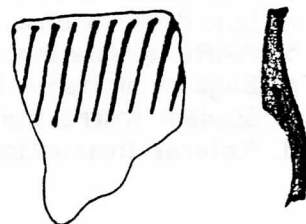
2. Ontario Horizontal: 1



3. Pound Necked: 11



4. Lawson Incised: 4



5. Lawson Opposed: 1



6. Niagara Collared: 0

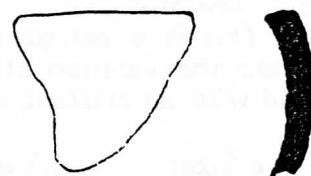


Figure 1

The Nissouri Site (7602)

This is a village site. Several concentrations of artifacts and dark soil indicate the location of former middens. Also evident in the ploughed field are reddish stains indicative of hearths within longhouses. The site relates to the Neutral period with an artifact seriation date of 1450 AD.

Site Size: 2 acres

Site Date: 1400 AD

Pottery Types Found:

1. Ontario Oblique:	0
2. Ontario Horizontal:	2
3. Pound Necked:	10
4. Lawson Incised:	4
5. Lawson Opposed:	0
6. Niagara Collared:	0

BrookDale Site (8706)

This is a large village site. Several concentrations of artifacts and dark soil indicate the location of former middens. A Carbon-14 date indicates 1500 AD as its age.

Site Size: 6 acres

Site Date: 1500 AD

Pottery Types Found:

1. Ontario Oblique:	0
2. Ontario Horizontal:	0
3. Pound Necked:	1
4. Lawson Incised:	18
5. Lawson Opposed:	7
6. Niagara Collared:	5

Unnamed Site (7607)

This is a village site. Several concentrations of artifacts and dark soil indicate the location of former middens.

Site Size: 1.5 acres

Site Date: uncertain

Pottery Types Found:

1. Ontario Oblique:	1
2. Ontario Horizontal:	17
3. Pound Necked:	7
4. Lawson Incised:	1
5. Lawson Opposed::	0
6. Niagara Collared:	0

Unnamed Site (7906)

As the site is now covered with a recently planted pinery, it is difficult to determine the size. Similar artifacts were found, however, over an area of 2 acres.

Site Size: 2 acres

Site Date: uncertain

Pottery Types Found:

1. Ontario Oblique:	0
2. Ontario Horizontal:	2

3. Pound Necked:	8
4. Lawson Incised:	1
5. Lawson Opposed:	0
6. Niagara Collared:	0

Unnamed Site (8207)

This is obviously a village site, as it covers a considerable area and there are numerous concentrations of artifacts. Near one of the fence lines it is noted that someone has been digging through a midden in an uncontrolled fashion.

Site Size: 2.5 acres

Site Date: uncertain

Pottery Types Found:

1. Ontario Oblique:	0
2. Ontario Horizontal:	1
3. Pound Necked:	11
4. Lawson Incised:	4
5. Lawson Opposed:	1
6. Niagara Collared:	0

Unnamed Site (8406)

This site is a village and covers a sizeable area. Surface survey conditions are not good, but some diagnostic material is found indicating that this is a promising site.

Site Size: 3.5 acres

Site Date: uncertain

Pottery Types Found:

1. Ontario Oblique:	0
2. Ontario Horizontal:	0
3. Pound Necked:	2
4. Lawson Incised:	14
5. Lawson Opposed:	1
6. Niagara Collared:	0

Unnamed Site (8202)

This is an interesting village, covering about 3 acres. Numerous dark stains and artifact concentrations indicate the locations of middens.

Site Size: 3 acres

Site Date: uncertain

Pottery Types Found:

1. Ontario Oblique:	0
2. Ontario Horizontal:	0
3. Pound Necked:	7
4. Lawson Incised:	15
5. Lawson Opposed:	3
6. Niagara Collared:	0

Unnamed Site (7803)

This is an interesting village covering about 3 acres. Numerous dark stains and artifact concentrations indicate the locations of middens. You notice

that, contrary to the soil map, the site seems to be located on a small deposit of sandy soil which is surrounded by clay. There is also a number of historic period artifacts which date to the mid 19th century. Much of the site is, however, covered with sod, so that shovel test pitting is necessary and the resulting artifact sample is not very large.

Site Size: 3 acres

Site Date: uncertain

Pottery Types Found:

- | | |
|------------------------|---|
| 1. Ontario Oblique: | 0 |
| 2. Ontario Horizontal: | 0 |
| 3. Pound Necked: | 2 |
| 4. Lawson Incised: | 6 |
| 5. Lawson Opposed: | 1 |
| 6. Niagara Collared: | 0 |

Appendix D Simulated Dig

This segment of the program involves a simulated excavation of a square meter of soil that has had artifacts planted in it. The students then simulate a dig by exposing a layer of cardboard with an exacto knife, as described above in the text. A reporting phase should be done at the end of the cardboard exercise, however you should encourage speculation and questions throughout.

The Dirt:

All artifacts should be measured from the corner of the box, recording the horizontal position and the layer in which they are found.

Levels and artifacts

- | | |
|------------------|---|
| 1. Upper level - | historic European and some Native artifacts. |
| 2. Level two - | ash layer with Native artifacts (one triangular point). |
| 3. Level three - | Native midden layer. |
| 4. Level four - | subsoil containing Native artifacts in a pit and also the post mould pattern. |

The Cardboard Mockup:

1. Excavation of one square costs \$100.
2. The ash layer extends over the whole site, but is not shown in the cardboard. It exists between the two sheets.
3. Excavate with the exacto knife.

Reporting - Questions:

1. Which houses came first - why?
2. What happened to the second house and indeed the whole village?
(it burned down)
3. What does the ash layer mean?
(could be many things - possibly warfare. Cite projectile point in ash)
4. What is the oldest possible date for the historic period component?
(determined by the coin)
5. What does the spatial pattern of the buttons mean?

(outlines a shirt that has rotted away)

6. Given the site findings, what would you say about the one large site at 1500 AD and the several smaller ones at 1450?
(war - implies a banding together for protection)
7. Why is there an Indian hamlet and a pioneer cabin on the same site?
(the pioneer needed the same topography and drainage for his cabin site - also beside the road way)
8. Do the recovered Indian artifacts change your guess at the date?